

traced in the Vesiculariadae, and in our common Flustræ and Escharinæ, where round the margin of the crust, cells can at all seasons be observed in every stage of their evolution ;—one just jutting out, another half-formed, and others again nearly complete. They never begin their original in the body of the polype, but always from the parietes, or rather the connecting medium ;* nor indeed is the embryo distinguishable within until the cells have made considerable advances to maturity. Then the softer parts begin to assume a shape, and gradually to limb themselves after the similitude of their antecedent co-partners, when having reached their term and ready for a partial independency, they burst their outward cerements, always at a fixed point, prepared for their exit by the same Power which has moulded the whole.

From this mode of increase there would seem to be no natural limits set to the magnitude and duration of the polypidom, except what arise from accident or extrinsic causes. The original polype and its immediate successors may grow old, languish and die ; but the solid cells remain in their connection as a root and fixture, while the newer races, which have sprung up towards the outskirts, continue their work,—generation following generation in rapid and ever-multiplying successions. The polypidom in this respect resembles a tree in its growth : the trunk and main branches have stood years and centuries, but the increase has been made by annual shoots and renewals, and the last know only vigour and juvenescence. And as the form of the tree depends on the fashion of its ramifications, so that of the polypidom on the mode of evolution of its cells, for every part of the axis is not equally organized to produce buds, nor the same parts in all. Hence if the primitive cell has only one point fitted for this gemmation, the polypidom will be builded up in a catenated chain ; if the cell has two points, two series

* They, in this respect, are formed the same as the Asteroida, of which Milne-Edwards says :—“ On voit donc qu' ici la partie qui donne naissance aux bourgeons reproducteurs est précisément la partie qui n'appartient en propre à aucun des Polypes réunis en masse, mais qui leur est commune à tous. Le tissu générateur entoure ces petits êtres comme une sorte de gangue vivante et produit dans la profondeur de sa substance de nouveaux polypes sans qu'aucun de ceux déjà existans paraissent intervenir d'une manière directe dans l'acte de la reproduction.” Ann. des Sc. Nat. iv. p. 340. 1835.